

SSP

GC-1337 C
EN

Super Slave Pump

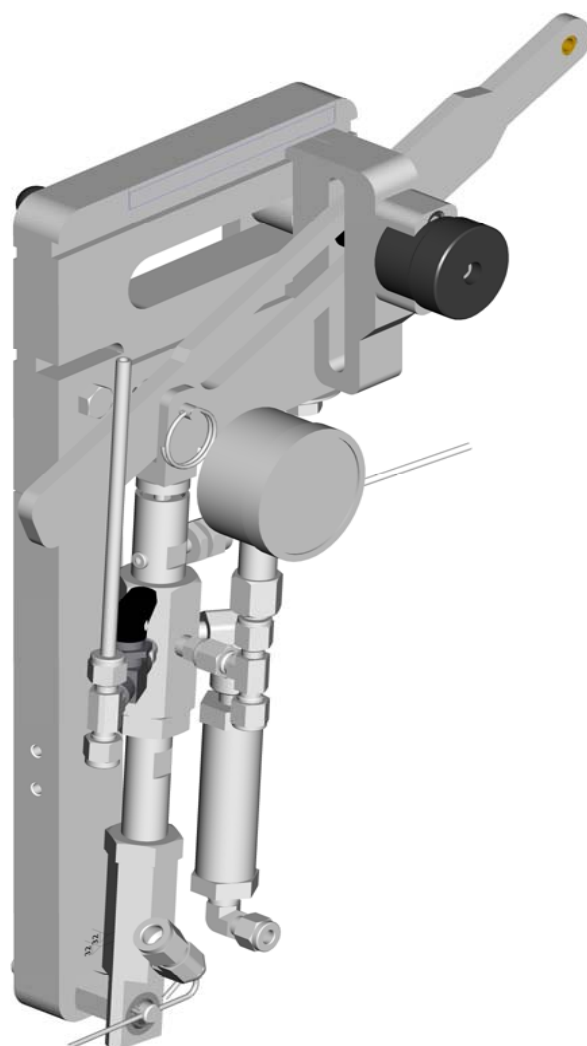
For use with Polyester Resin, and Gel-Coat . For professional use only.

Maximum fluid working pressure:
2000 psi. (14 MPa, 138 bar)



Important Safety Instructions

Read all warnings and instructions in this manual. Save these instructions.



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N/A = Non Applicable






Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbol refers to procedure-specific risk. Refer back to these warnings. Additional, product-specific warnings may be found throughout the body of this manual where applicable.

- See Important Safety Information - MEKP, Polyester Resins and Gel-Coats and Spraying and Lamination Operations section of this manual.

 WARNING	
	<p>FIRE AND EXPLOSION HAZARD</p> <p>Flammable fumes, such as solvent and paint fumes, in work area can ignite or explode. To help prevent fire and explosion:</p> <ul style="list-style-type: none"> • Use equipment only in well ventilated area. • Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static arc). • Keep work area free of debris, including solvent, rags and gasoline. • Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present. • Ground all equipment in the work area. See Grounding instructions. • Use only grounded hoses. • Hold gun firmly to side of grounded pail when triggering into pail. • If there is static sparking or you feel a shock, stop operation immediately. Do not use equipment until you identify and correct the problem. • Keep a working fire extinguisher in the work area.
	<p>PERSONAL PROTECTIVE EQUIPMENT</p> <p>You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, including eye injury, inhalation of toxic fumes, burns, and hearing loss. This equipment includes but is not limited to:</p> <ul style="list-style-type: none"> • Protective eyewear • Clothing and respirator as recommended by the fluid and solvent manufacturer • Gloves • Hearing protection
	<p>TOXIC FLUID OR FUMES HAZARD</p> <p>Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.</p> <ul style="list-style-type: none"> • Read MSDS's to know the specific hazards of the fluids you are using. • Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines. • Always wear impervious gloves when spraying or cleaning equipment.

Warnings

 WARNING	
	<p>SKIN INJECTION HAZARD</p> <p>High-pressure fluid from gun, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. Get immediate surgical treatment.</p> <ul style="list-style-type: none"> • Do not point gun at anyone or at any part of the body. • Do not put your hand over the dispense outlet. • Do not stop or deflect leaks with your hand, body, glove, or rag. • Engage trigger lock when not spraying. • Follow Pressure Relief Procedure in this manual, when you stop spraying and before cleaning, checking, or servicing equipment.
	<p>MOVING PARTS HAZARD</p> <p>Moving parts can pinch or amputate fingers and other body parts.</p> <ul style="list-style-type: none"> • Keep clear of moving parts. • Do not operate equipment with protective guards or covers removed. • Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the Pressure Relief Procedure in this manual. Disconnect power or air supply.
	<p>EQUIPMENT MISUSE HAZARD</p> <p>Misuse can cause death or serious injury.</p> <ul style="list-style-type: none"> • Do not operate the unit when fatigued or under the influence of drugs or alcohol. • Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See Technical Data in all equipment manuals. • Use fluids and solvents that are compatible with equipment wetted parts. See Technical Data in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request MSDS forms from distributor or retailer. • Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only. • Do not alter or modify equipment. • Use equipment only for its intended purpose. Call your distributor for information. • Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces. • Do not kink or over bend hoses or use hoses to pull equipment. • Keep children and animals away from work area. • Comply with all applicable safety regulations.
	<p>PRESSURIZED ALUMINUM PARTS HAZARD</p> <p>Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in pressurized aluminum equipment. Such use can cause serious chemical reaction and equipment rupture, and result in death, serious injury, and property damage.</p>

Important Safety Information

Methyl Ethyl Ketone Peroxide (MEKP)

MEKP is among the more hazardous materials found in commercial channels. Proper handling of the “unstable (reactive)” chemicals presents a definite challenge to the plastics industry. The highly reactive property which makes MEKP valuable to the plastics industry in producing the curing reaction of polyester resins and gel-coats also produces the hazards which require great care and caution in its storage, transportation, handling, processing and disposal.

Workers must be thoroughly informed of the hazards that may result from improper handling of MEKP, especially in regards to contamination and heat. They must be thoroughly instructed regarding the proper action to be taken in the storage, use and disposal of MEKP and other hazardous materials used in the laminating operation.



MEKP is flammable and potentially explosive, as well as potentially damaging to the eyes and skin.

Read material manufacturer's warnings and material MSDS to know specific hazards and precautions related to MEKP.

Contaminated MEKP can become explosive. Prevent contamination of MEKP with other materials, which includes, but is not limited to polyester overspray, polymerization accelerators and promoters, and non-stainless metals. Even small amounts of contaminants can make MEKP explosive. This reaction may start slowly, and gradually build-up heat, which can accelerate until fire or an explosion result. This process can take from seconds to days.

Heat applied to MEKP, or heat build-up from contamination reactions can cause it to reach what is called its Self-Accelerating Decomposition Temperature (SADT), which can cause fire or explosion.

Spills should be promptly removed, so no residues remain. Spillage can heat up to the point of self-ignition. Dispose in accordance with manufacture's recommendation.

Store MEKP in a cool, dry and well-ventilated area in the original containers away from direct sunlight and away from other chemicals. It is strongly recommended that the storage temperature remain below 86° F (30° C). Heat will increase the potential for explosive decomposition. Refer to NFPA 432. Keep MEKP away from heat, sparks and open flames.

Current catalysts are premixed and do not require any diluents. GlasCraft strongly recommends that diluents not be used. Diluents add to the possibility of contaminants entering the catalyst system. Never dilute MEKP with acetone or any solvent since this can produce an extremely shock-sensitive compound which can explode.

Use only original equipment or equivalent parts from GlasCraft in the catalyst system (i.e.: hoses, fittings, etc.) because a hazardous chemical reaction may result between substituted parts and MEKP.

To prevent contact with MEKP, appropriate personal protective equipment, including chemically impermeable gloves, boots, aprons and goggles are required for everyone in the work area.

Polyester Resins and Gel-Coats



Spraying materials containing polyester resin and gel-coats creates potentially harmful mist, vapors and atomized particulates. Prevent inhalation by providing sufficient ventilation and the use of respirators in the work area.

Read the material manufacturer's warnings and material MSDS to know specific hazards and precautions related to polyester resins and gel-coats.

To prevent contact with polyester resins and gel-coats, appropriate personal protective equipment, including chemically impermeable gloves, boots, aprons and goggles are required for everyone in the work area.

Spraying and Lamination Operations



Remove all accumulations of overspray, FRP sandings, etc. from the building as they occur. If this waste is allowed to build up, spillage of catalyst is more likely to start a fire.

If cleaning solvents are required, read material manufacture's warnings and material MSDS to know specific hazards and precautions. (GlasCraft recommends that clean-up solvents be nonflammable.)



GlasCraft recommends that you consult OSHA Sections 1910.94, 1910.106, 1910.107 and NFPA No. 33, Chapter 16,17, and NFPA No. 91 for further guidance.

Grounding



This equipment needs to be grounded.

Ground the dispense gun through connection to an GlasCraft approved grounded fluid supply hose.

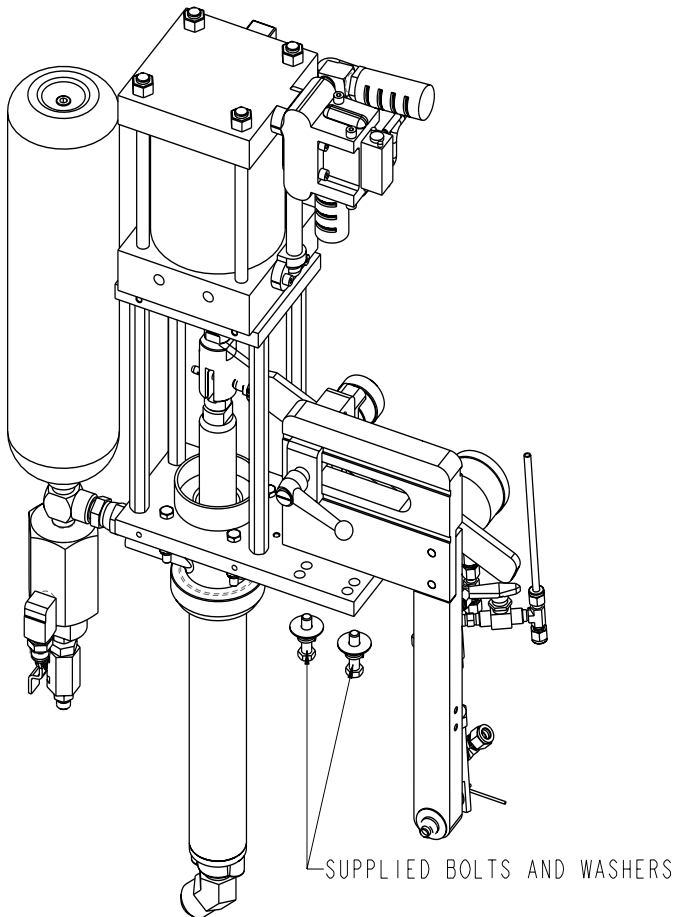
Check your local electrical code and related manuals for detailed grounding instructions of all equipment in the work area.



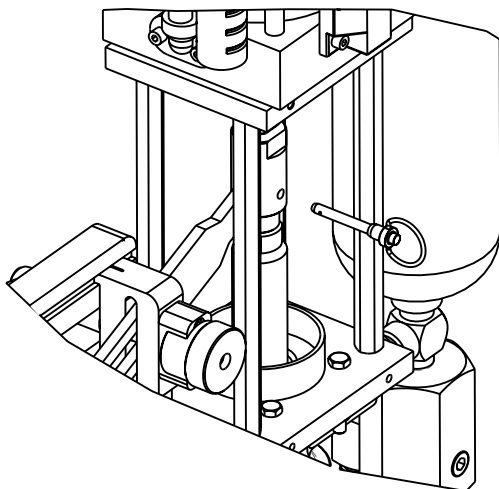
A grounding wire and clamp are provided, assembly p/n 17440-00 with all FRP equipment.

Set-Up


1. Attach the slave pump assembly to the fluid section plate.

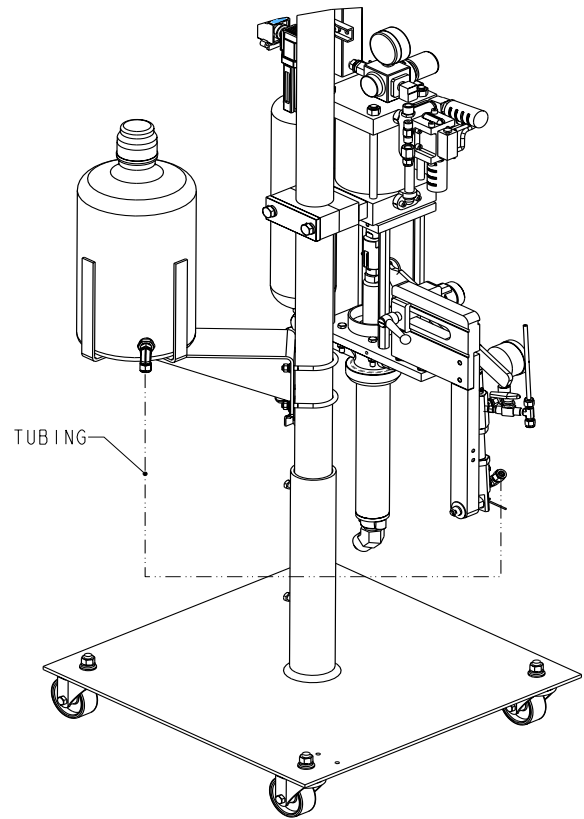


2. Attach the slave pump drive arm to pump shaft.

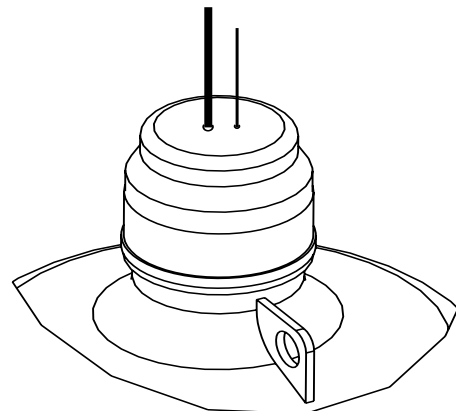



3. Install the tubing from the catalyst pump to the catalyst jug. Use two wrenches to carefully tighten compression nuts to lock the tubing down.

 The tubing must be cut to desired length, giving a natural gravity feed supply to the slave pump.



4. Install the catalyst and bypass tubing into the holes in the catalyst jug cap. **Make sure the filter screen is in place under the cap.**



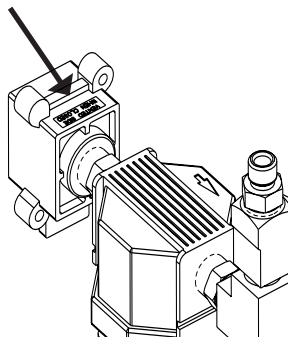
 Refer to system manuals for proper start-up and shut down.

Pressure Relief Procedure

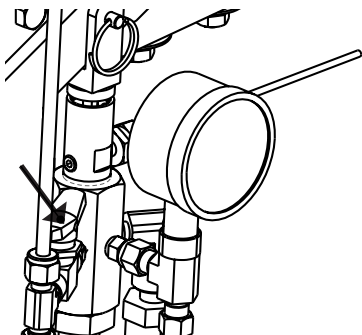


To relieve fluid and air pressures:

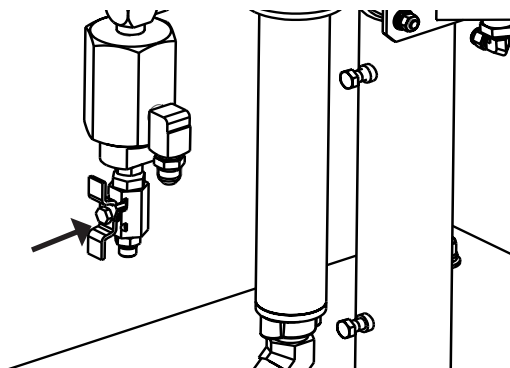
1. *Push down Yellow slide valve, P/N 21402-00 to bleed off air to system.*



2. *Open P/N 21228-00 on catalyst pump to recirculation position.*



3. *Open P/N 21192-00 on bottom of material pump.*



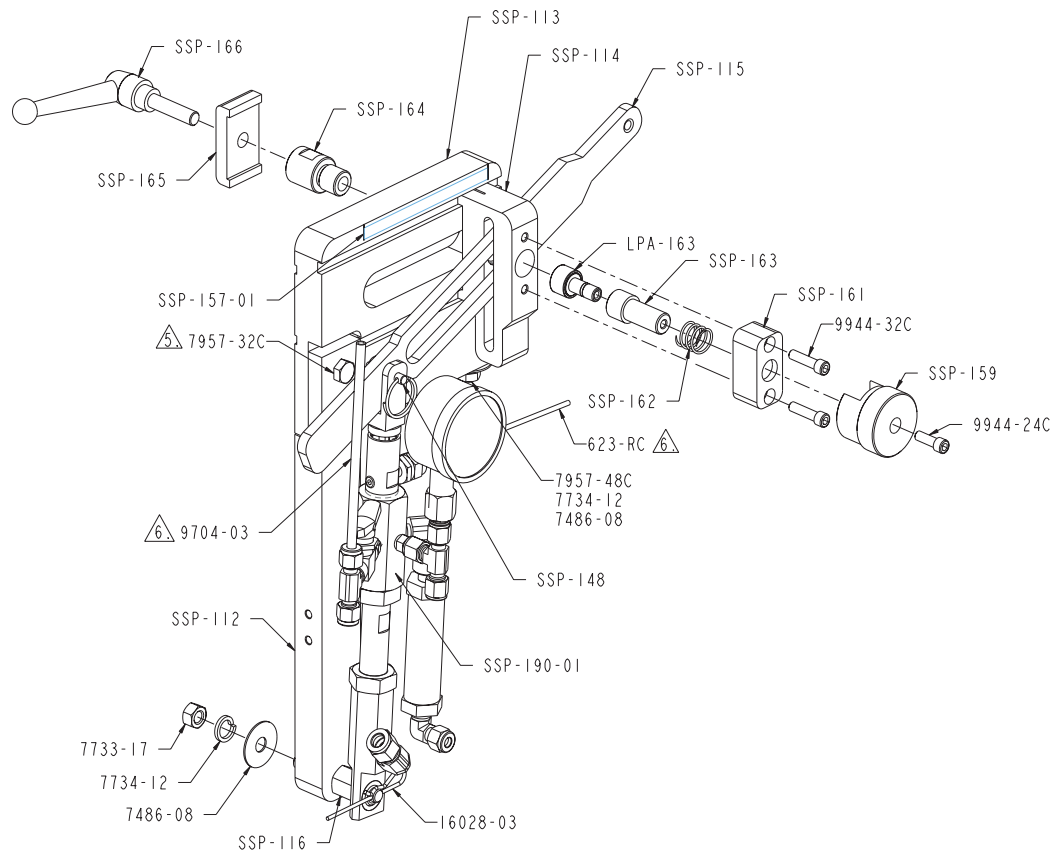
Parts

Model - Super Slave Pump

Part Number	Description
SSP-160-XX	SUPER SLAVE PUMP
GC-1337	USER MANUAL

Assembly Drawings

SSP-160-01 Super Slave Pump



⚠ BOTH RETURN LINES P/N 9704-03 AND 623-RC, RUN FROM THE SLAVE PUMP ASSY. TO THE CATALYST BOTTLE.

⚠ USE THREADLOCKER (#24231-242) AS NEEDED, BOTH SCREWS.

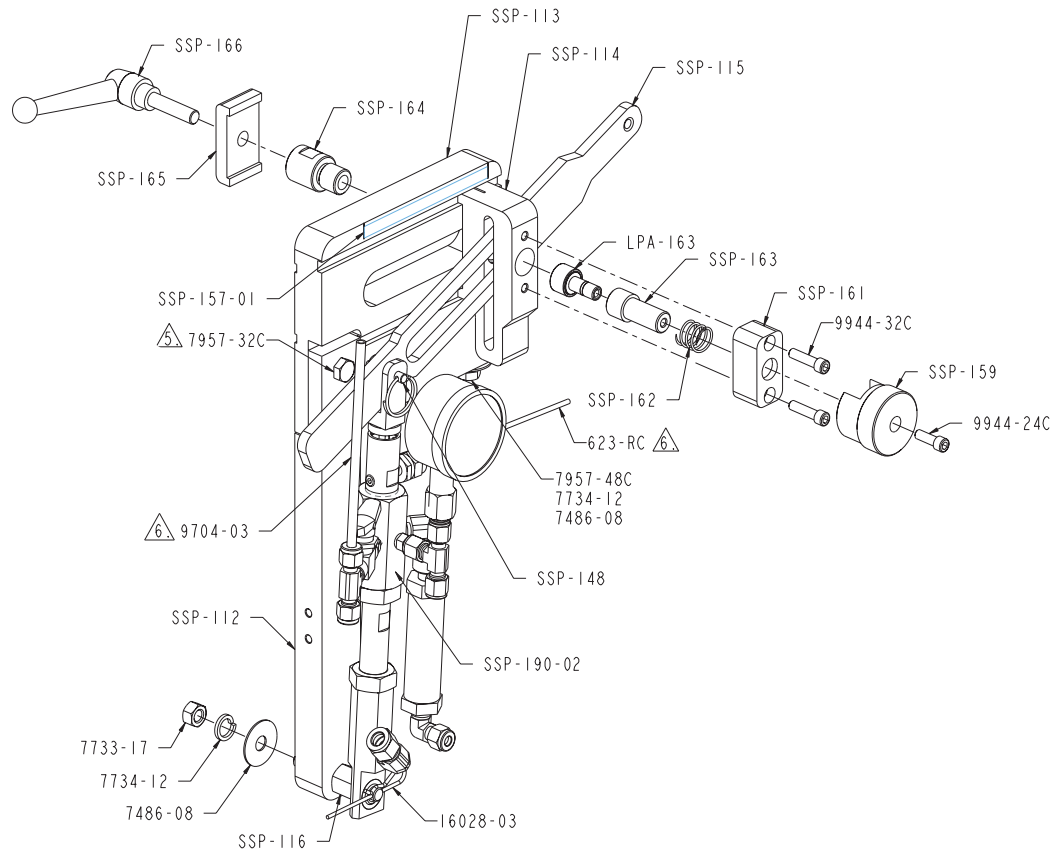
Part Number	Description	Qty.
LPA-163	CAM, FOLLOWER	1
SSP-112	PLATE EXTENSION	1
SSP-113	PLATE ADAPTER	1
SSP-114	SLAVE PUMP SLIDER	1
SSP-115	SLAVE PUMP DRIVE ARM	1
SSP-116	HEX ADAPTER	1
SSP-148	RELEASE PIN	1
SSP-157-01	CALIBRATION DECAL	1
SSP-159	PIVOT KNOB	1
SSP-161	SLAVE PUMP LOCK	1
SSP-162	COMPRESSION SPRING	1
SSP-163	PIVOT HANDLE	1

Part Number	Description	Qty.
SSP-164	SLIDER INSERT	1
SSP-165	SLIDER LOCK	1
SSP-166	CLAMPING HANDLE	1
SSP-190-01	SLAVE PUMP	1
16028-03	HITCH PIN	1
623-RC	TUBING	5
7486-08	WASHER	3
7733-17	HEX NUT	1
7734-12	LOCK WASHER	3
7957-32C	SCREW	2
7957-48C	SCREW	2
9704-03	TUBING	5
9944-24C	SCREW	1
9944-32C	SCREW	2

REVISION C

Assembly Drawings

SSP-160-02 Super Slave Pump



△ BOTH RETURN LINES P/N 9704-03 AND 623-RC, RUN FROM THE SLAVE PUMP ASSY. TO THE CATALYST BOTTLE.

△ USE THREADLOCKER (#24231-242) AS NEEDED, BOTH SCREWS.

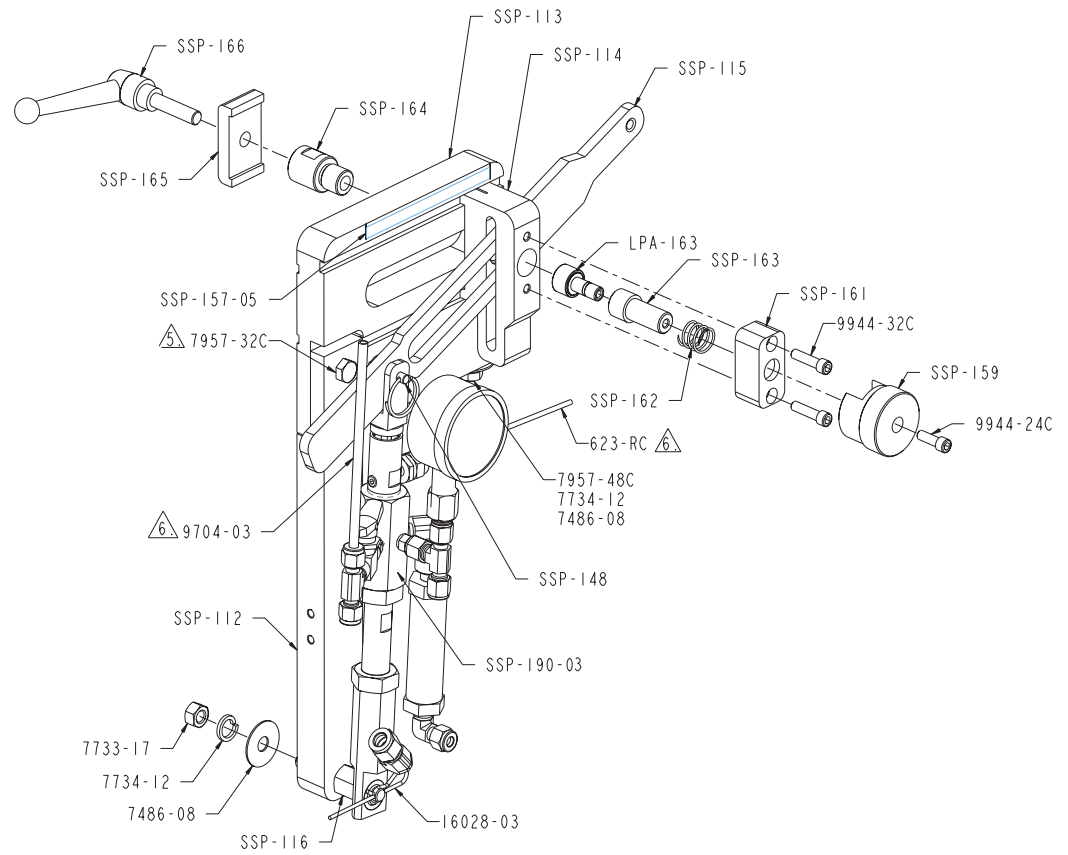
Part Number	Description	Qty.
LPA-163	CAM, FOLLOWER	1
SSP-112	PLATE EXTENSION	1
SSP-113	PLATE ADAPTER	1
SSP-114	SLAVE PUMP SLIDER	1
SSP-115	SLAVE PUMP DRIVE ARM	1
SSP-116	HEX ADAPTER	1
SSP-148	RELEASE PIN	1
SSP-157-01	CALIBRATION DECAL	1
SSP-159	PIVOT KNOB	1
SSP-161	SLAVE PUMP LOCK	1
SSP-162	COMPRESSION SPRING	1
SSP-163	PIVOT HANDLE	1

Part Number	Description	Qty.
SSP-164	SLIDER INSERT	1
SSP-165	SLIDER LOCK	1
SSP-166	CLAMPING HANDLE	1
SSP-190-02	SLAVE PUMP	1
16028-03	HITCH PIN	1
623-RC	TUBING	5
7486-08	WASHER	3
7733-17	HEX NUT	1
7734-12	LOCK WASHER	3
7957-32C	SCREW	2
7957-48C	SCREW	2
9704-03	TUBING	5
9944-24C	SCREW	1
9944-32C	SCREW	2

REVISION C

Assembly Drawings

SSP-160-03 Super Slave Pump



△ BOTH RETURN LINES P/N 9704-03 AND 623-RC, RUN FROM THE SLAVE PUMP ASSY. TO THE CATALYST BOTTLE.

△ USE THREADLOCKER (#24231-242) AS NEEDED, BOTH SCREWS.

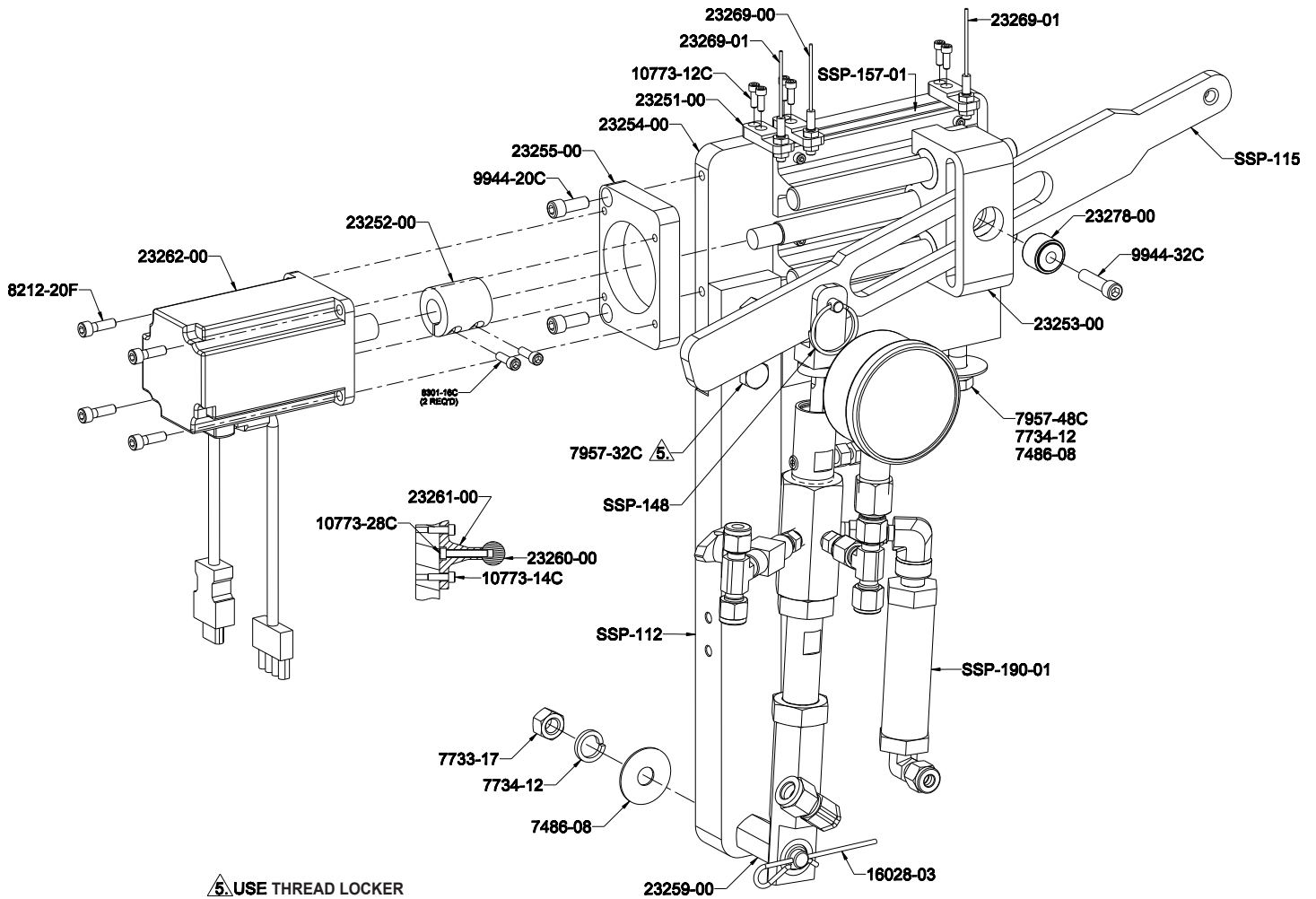
Part Number	Description	Qty.
LPA-163	CAM, FOLLOWER	1
SSP-112	PLATE EXTENSION	1
SSP-113	PLATE ADAPTER	1
SSP-114	SLAVE PUMP SLIDER	1
SSP-115	SLAVE PUMP DRIVE ARM	1
SSP-116	HEX ADAPTER	1
SSP-148	RELEASE PIN	1
SSP-157-05	CALIBRATION DECAL	1
SSP-159	PIVOT KNOB	1
SSP-161	SLAVE PUMP LOCK	1
SSP-162	COMPRESSION SPRING	1
SSP-163	PIVOT HANDLE	1

Part Number	Description	Qty.
SSP-164	SLIDER INSERT	1
SSP-165	SLIDER LOCK	1
SSP-166	CLAMPING HANDLE	1
SSP-190-03	SLAVE PUMP	1
16028-03	HITCH PIN	1
623-RC	TUBING	5
7486-08	WASHER	3
7733-17	HEX NUT	1
7734-12	LOCK WASHER	3
7957-32C	SCREW	2
7957-48C	SCREW	2
9704-03	TUBING	5
9944-24C	SCREW	1
9944-32C	SCREW	2

REVISION C

Assembly Drawings

SSP-160-04 Super Slave Pump



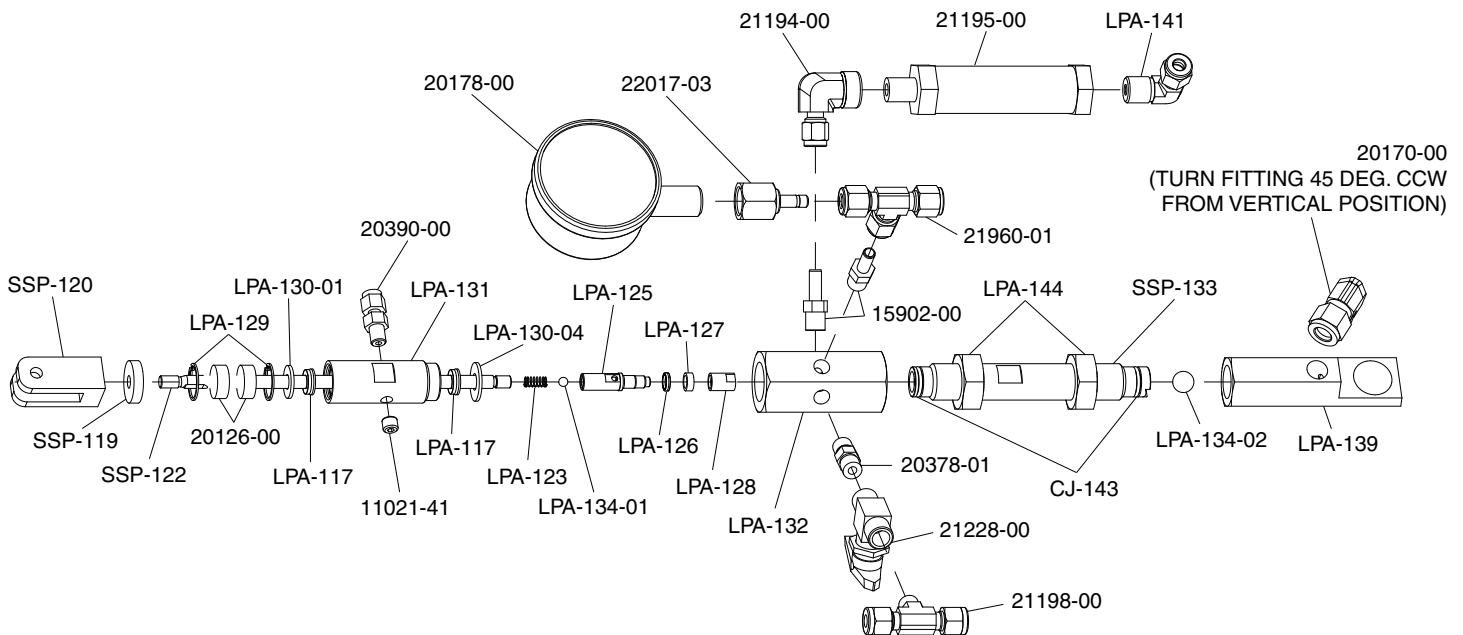
Part Number	Description	Qty.
10773-12C	SCREW	6
10773-14C	SCREW	8
10773-28C	SCREW	4
16028-03	HITCH PIN	1
23251-00	MOUNTING BRACKET	3
23252-00	MOTOR COUPLER	1
23253-00	SLAVE SLIDER	1
23254-00	ADJUSTABLE MOUNT	1
23255-00	ADAPTER PLATE	1
23256-00	ADJUSTMENT ROD	1
23259-00	HEX ADAPTER	1
23260-00	PRECISION ROD	2
23261-00	SUPPORT RAIL	2
23262-00	SERVO MOTOR	1
23269-00	NORMALLY OPEN SENSOR	1
23269-01	NORMALLY CLOSED SENSOR	2

Part Number	Description	Qty.
23278-00	ROLLER BEARING	1
7486-08	WASHER	3
7733-17	HEX NUT	1
7734-12	LOCK WASHER	3
7957-32C	SCREW	2
7957-48C	SCREW	2
8212-20F	SCREW	4
8301-16C	SCREW	2
9944-20C	SCREW	2
9944-32C	SCREW	1
SSP-112	SLAVE PLATE EXTENSION	1
SSP-115	DRIVE ARM	1
SSP-148	RELEASE PIN	1
SSP-157-01	CALIBRATION DECAL	1
SSP-190-01	SLAVE PUMP	1

REVISION A

Sub-Assembly Drawings

SSP-190-01 Fluid Section



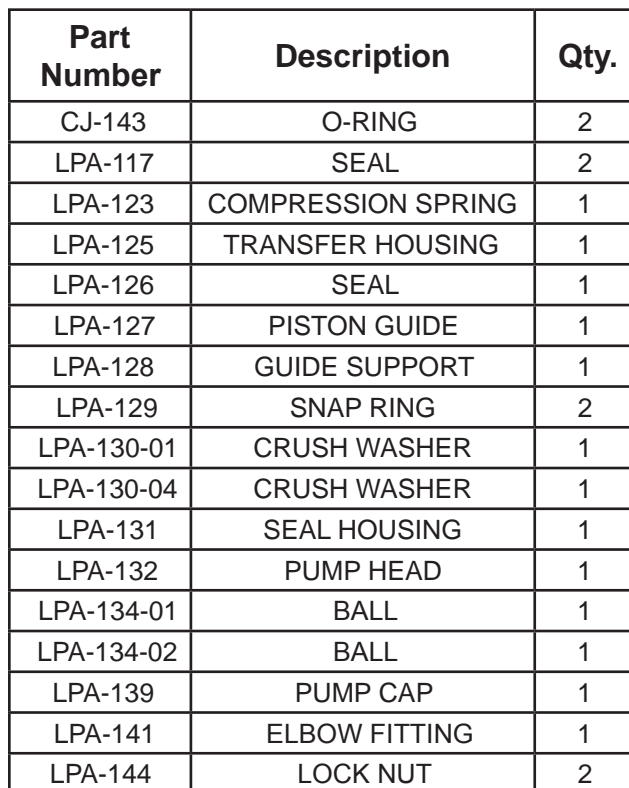
Part Number	Description	Qty.
CJ-143	O-RING	2
LPA-117	SEAL	2
LPA-123	COMPRESSION SPRING	1
LPA-125	TRANSFER HOUSING	1
LPA-126	SEAL	1
LPA-127	PISTON GUIDE	1
LPA-128	GUIDE SUPPORT	1
LPA-129	SNAP RING	2
LPA-130-01	CRUSH WASHER	1
LPA-130-04	CRUSH WASHER	1
LPA-131	SEAL HOUSING	1
LPA-132	PUMP HEAD	1
LPA-134-01	BALL	1
LPA-134-02	BALL	1
LPA-139	PUMP CAP	1
LPA-141	ELBOW FITTING	1
LPA-144	LOCK NUT	2

Part Number	Description	Qty.
SSP-119	SLAVE PUMP BUMPER	1
SSP-120	"Y" BRACKET	1
SSP-122	PUMP SHAFT	1
SSP-133	PUMP CYLINDER	1
11021-41	PIPE PLUG	1
15902-00	TUBE FITTING	2
20126-00	FELT WIPER	2
20170-00	ELBOW FITTING	1
20178-00	PRESSURE GAUGE	1
20378-01	FITTING	1
20390-00	FITTING	1
21194-00	ELBOW FITTING	1
21195-00	RELIEF VALVE	1
21198-00	TEE FITTING	1
21228-00	2-WAY BALL VALVE	1
21960-01	TEE FITTING	1
22017-03	TUBE ADAPTER	1
623-RC	TUBING	5
9704-03	TUBING	5.583

NOTE: Do not attempt to remove the PTFE insert inside LPA-131.
SEAL KIT: LPA-190-SK

REVISION L

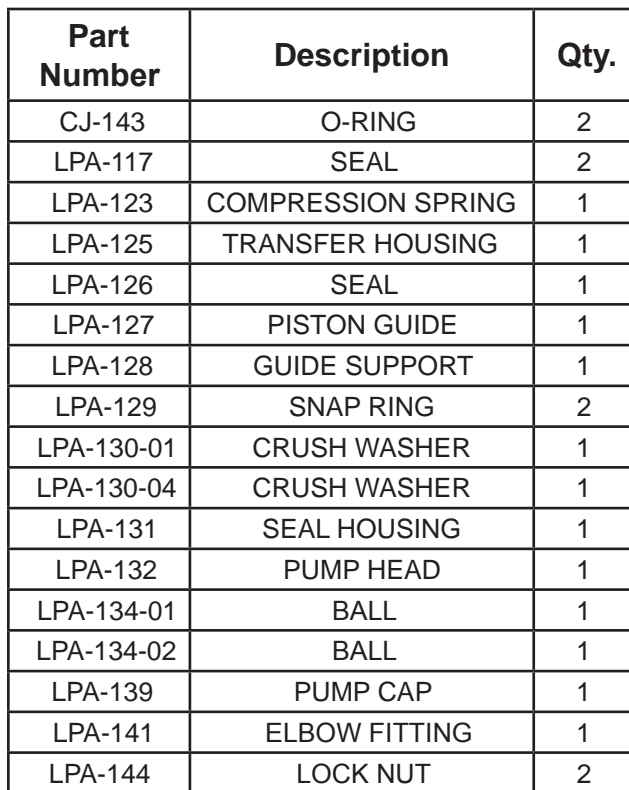
SSP-190-02 Fluid Section



NOTE: Do not attempt to remove the PTFE insert inside LPA-131.
SEAL KIT: LPA-190-SK

15

SSP-190-03 Fluid Section



NOTE: Do not attempt to remove the PTFE insert inside LPA-131.
SEAL KIT: LPA-190-SK

GC-1337C

Maintenance

						
<p><i>Before performing any maintenance on this pump - Follow pressure relief procedures on page 8.</i></p>						

Weekly Maintenance

1. Remove catalyst check valve. Pull the poppet at the end of the check valve lightly with your hand. Inspect and clean any contamination. Replace into gun.
2. Clean filter at resin pump. When opening pump relief valve, make sure all resin and air is evacuated from surge bottle.
3. Inspect and clean filter on pick-up wand.
4. Clean pump lube cup and add fresh pump lube.

Accessories

Repair Kits:

LPA-190-RK		
Part Number	Description	Qty.
CJ-143	O-RING	2
CJ-154	O-RING	1
D-123-10	O-RING	1
LPA-117	SEAL	2
LPA-126	SEAL	1
LPA-127	PISTON GUIDE	1
LPA-118	TUBING	1.75 FT.
LPA-123	SPRING	1
LPA-130-04	CRUSH WASHER	1
LPA-134-01	BALL	1
LPA-134-02	BALL	1
LPA-157	DECAL	1
9704-11	TUBING	5 FT.
9704-03	TUBING	1 FT.
20126-00	FELT WIPER	2
17653-01	FRONT FERRULE	1
17653-26	BACK FERRULE	1

LPA-190-SK		
Part Number	Description	Qty.
CJ-143	O-RING	2
CJ-154	O-RING	1
D-123-10	O-RING	1
LPA-117	SEAL	2
LPA-126	SEAL	1
LPA-127	PISTON GUIDE	1
LPA-130-04	CRUSH WASHER	1
20126-00	FELT WIPER	2

Technical Data

Category	Data
Maximum Fluid Working Pressure	2000 psi (14 MPa, 138 bar)
Maximum Air Inlet Pressure	
Maximum Fluid temperature	100° F (38° C)
Sound Pressure	
Sound Power, measured per ISO 9614-2	
Dimensions SSP-160-01 & -02	13.82 L X 8.0 W X 16.30 H (351.03 X 203.2 X 414.02 mm)
Dimensions SSP-160-04	15.96 L X 6.60 W X 16.73 H (405.38 X 167.64 X 424.94 mm)
Weight SSP-160-01 & -02	13.60 Lbs.
Weight SSP-160-04	17.00 Lbs.
Wetted Parts	Catalyst- Chemically coated aluminum, stainless steel, chemically resistant o-rings Resin- Carbon steel, carbide, chemically resistant o-rings.

Graco Standard Warranty

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY GRACO. These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties. In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

FOR GRACO CANADA CUSTOMERS

The Parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présente document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés, à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

Graco Information

For the latest information about Graco products, visit www.graco.com.

TO PLACE AN ORDER, contact your Graco distributor or call to identify the nearest distributor.
Toll Free: 1-800-746-1334 **Fax:** 1-330-966-3006

All written and visual data contained in this document reflects the latest product information available at the time of publication. Graco reserves the right to make changes at any time without notice.

Original instructions. This manual contains English. MM GC-1337

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International Offices: Belgium, China, Japan, Korea

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Revised 07/2011